REMARKS

Claims 1, 3-7, 10-21, 24-30, and 34-40 are pending. Claims 21 and 24-30 have been allowed, claims 1, 6, and 17 have been amended, claims 2, 8, 9, 22, 23, and 31-33 have been canceled, and new claims 35-40 have been added to recite additional features of the embodiments disclosed in the specification. The amendments to claim 1 address the claim objection.

Reconsideration of the application is respectfully requested for the following reasons.

In the Office Action, claims 1, 3-7, 10-20, and 34 were rejected under 35 USC § 103(a) for being obvious in view of a Souza-Shiell combination. This rejection is traversed as follows.

Claim 1 recites that the filter driver generates the power mode changing signal based on two conditions: (1) the result of the comparison and (2) the "status of a queue for storing input/output request packets (IRPs) generated by one or more control circuits, at least one of which includes an input/output device manager." (See, for example, Paragraph [51] of the specification for support). Monitoring the status of this queue lends an additional degree of power control, since, for example, it provides a measure of the closeness of the device to a suspend mode. Accordingly, dispatch of packets relative to the queue may be more readily controlled prior to power down of the device. (See, e.g., Paragraph [49]). The cited references do not teach or suggest these features.

The Souza patent discloses a system that reduces the power to a peripheral device

independently of a power mode of a host computer system. Souza further discloses that this

power reduction may be performed by generating an input/output request packet. (See column

4, lines 10-12).

However, Souza does not teach or suggest reducing device power based on the status of

the queue for storing input/output request packets (IRPs) generated by one or more control

circuits, at least one of which includes an input/output device manager. More specifically, in the

Office Action, the Examiner appeared to compare this IRP to the FIRP of the invention.

However, Souza does not disclose monitoring a queue for storing IRPs and then reducing power

to a device based on the status of such a queue.

The Shiell patent is also deficient in this respect. The Shiell patent discloses monitoring

the idle time of a peripheral device, and then reducing power to the device when the idle time

exceeds expiration of a timer. However, Shiell does not teach or suggest the features added by

amendment to claim 1, i.e., generating a power mode changing signal based on two conditions:

(1) the result of the comparison and (2) the "status of a queue for storing input/output request

packets (IRPs) generated by one or more control circuits, at least one of which includes an

input/output device manager."

Applicants submit that claim 1 and its dependent claims are allowable over a Souza-Shiell

combination based on these differences.

Claims 6 and 17 recite features similar to those which patentably distinguish claim 1. For

example, as amended, claim 6 recites that the changing step includes "detecting a status of a queue for storing input/output request packets (IRPs) generated by one or more control circuits, at least one of which includes an input/output device manager" and implementing a control procedure which includes changing the device to independently operate in the second power mode "based on a result of said comparison and the status of the queue."

Claim 17 recites "detecting a status of a queue for storing input/output request packets (IRPs) generated by one or more control circuits" and changing a power mode of the device from the operating mode to a power down mode "based on the status of the queue and when the idle state is not reset for a predetermined time."

The Souza and Shield patents do not teach or suggest the features added by amendment to claims 6 and 17. Accordingly, it is submitted that claims 6, 17, and their dependent claims are allowable over a combination of these patents.

Applicants further note that dependent claim 14 separately recites that "the prescribed amount has a first timeout value in a battery mode, a second timeout value in a performance mode, and the prescribed amount varies according to an object device, and wherein the prescribed amount or said at least one device is set by a user or preset." (Emphasis added). These features are not taught or suggested by the cited references, whether taken alone or in combination. Claim 19 recites similar features.

Claims 35-40 have been added to the application.

Claim 35 recites that "the filter driver controls the device to operate in the reduced power mode independently from the computer system continuing in the operating mode when the accumulated amount of time is greater than the predetermined time and the status of the queue is empty of IRPs generated by said one or more control circuits." (See, for example, Paragraph [51] for support). These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 36 recites that "the filter driver also generates said signal based on a status of a Suspend flag value indicative of whether a received IRP is a power IRP." (See, for example, Paragraphs [49] and [53]-[57]). These features are not taught or suggested by the cited references, whether taken alone or in combination. Claims 37 and 38 and claims 39 and 40 recite similar features depending from claims 6 and 17 respectively.
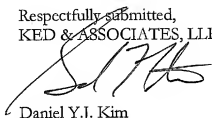
In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and timely allowance of the application are respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
KED & ASSOCIATES, LLP

Daniel Y.J. Kim
Registration No. 36,186

Samuel W. Ntiros
Registration No. 39,318

P.O. Box 221200
Chantilly, Virginia 20153-1200
(703) 766-3777 DYK/SWN/kzw
Date: August 31, 2007
Please direct all correspondence to Customer Number 34610